PRELIMINARY INSTRUCTIONS

for The Ansted Engine *in the* Series "T" Models

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Close the throttle and retard spark lever. Put on the ignition switch.

Pull out choker button as far as it will go, this will open the by-pass around throttle valve in carburetor and prime the engine.

Step on starter button.

As soon as engine begins firing, open the hand throttle from one-eighth to one-fourth way at same time push in choker button a small amount. This will kill the by-pass and prevent flooding the engine with raw gasoline.

Allow engine to run this way for 20 or 30 seconds, to allow grid in the gasifier to warm up and the oil pressure to raise a few pounds.

Go ahead and start car, opening throttle slowly. If no popping in carburetor occurs, push in a small amount on choker button, leaning up the mixture. In about one to two minutes running the Lexi-gasifier will be hot enough and the choker can be pushed all the way in.

In stopping engine open throttle about one-fourth way, at same time throw off ignition switch. This will fill cylinders with fresh gas and make for easy starting the next time.

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Oil Pressure

After the engine has been standing for some time and all the oil drained back into the pump, at first starting up, until oil pressure comes on, the rods and bearings will rattle perhaps quite a little. Do not assume that the bearings are all worn, or loose. Wait until the oil pressure comes on, which will be only a few seconds.

Bearings

All bearings, main shaft, connecting rods, and camshaft bearings are all fitted to have not less than one and one-half thousandths of an inch clearance to allow for an oil film. This we must have at all times to insure proper lubrication. All bearings are reamed to size and are intended to be, and are nothing but plain round holes without spiral grooves or reliefs of any kind, except the annular rings provided to lead oil to different places.

Shims

Bearings are reamed to size, with shims, six-thousandths of an inch thick, made up of three laminations each, two-thousandths thick. This allows for ample take up for an indefinite period. When shims have all been removed, do not file rods, take them out, put in new ones, return the old ones to factory for new babbitt. Same applies to main bearings. The charge for such an exchange is very small, and assures

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a good bearing. Never file the rod, as this ruins it, and makes the bearing out of round.

Bearing take-up

If it is necessary to refit, or take up, bearings at any time, take an ordinary cigarette paper and fold it double, placing same under the cap, with nuts tight. The bearing should be a snug fit. To be right, a rod should just about hold its own weight in a horizontal position. After which remove papers and set up nuts tight. This will give the proper clearance of one and one-half thousandths for oil, and must be done. Slogan: set them up snug on two cigarette papers.

Oiling System

The oiling system is designed to work in proportion to work being done in the engine and not in proportion to speed, as is common in other engines. When the engine is pulling hard you have a high oil pressure. When throttle is closed and little work being done, even at high engine speeds, such as drifting down hill, you have a low pressure. This prevents oil being worked up into combustion chambers, due to high vacuum when running with closed throttle.

Lubrication

The oil pressure is controlled by vacuum in the intake manifold connected to pressure regulator at front end. This regulator is set

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at factory and does not have to be adjusted. No adjustments are provided.

When oil pressure does not come up to 35 to 45 pounds at wide open throttle, you should change oil completely in crank case; as the oil has become thinned from the residue in the fuel.

The residue is that portion in the fuel that cannot be burned in the engine cylinders. It prevails in all fuels more or less at present time. By analysis in Chemical Laboratory, we have found this residue to amount to about 2 to 3 per cent.

We were only able to burn this in a crucible with the flame from a Bunsen burner turned directly into it for a considerable period of time.

This is what passes down cylinder walls into oil sump and dilutes the oil, lowering its viscosity and robbing the oil of its lubricating properties. Since this residue is present it must be reckoned with; therefore, we must change the lubricating oil. And the very best barometer is the drop in oil pressure at wide open throttle.

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Lexi-gasifier

With the Lexi-gasifier we are able to carry this residue to a further conclusion than is possible in any other engine under all conditions today, we believe.

Carburetion

It is imperative that you use as lean a mixture as possible at all times consistent with correct performance.

Carburetor Adjustments

You do not need the services of an expert to correct your carburetor to suit the fuel and altitude conditions of your particular locality.

While the engine is warm, with throttle closed, and spark retarded, adjust the idling screw, which is the little thumb screw on top of carburetor, forward and back a notch or two at a time until engine runs smooth. This is all that is necessary. Then go on the road for the high speed adjustment. Step on the throttle and note the pick up (acceleration). Stop car, and with a small screw driver back up the small screw in air valve about two notches (feel for the notches), anti-clockwise, or to the left, and try acceleration again. Keep doing this until you begin to lose acceleration; then go back the other way, until you get it, and leave it alone.

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Choker

Use the choker to start and warm up; do not change carburetor setting; as soon as engine warms up it will be Okay.

Do not run with choker pulled out after engine warms up, as you will only waste fuel, foul the plugs and cylinders, and have less power.

Gasoline

Oil

Always use the same grade of gasoline if possible. Use nothing but a good grade of oil. See Bulletin on complete oil specification.

Valve Adjusting

There is only one adjustment on the whole valve gear, located on the top of rocker arms.

With the engine warmed up, allow same to run idle and make adjustments by means of a screw driver and an open end wrench.

Make the adjustment carefully. When the adjustment is correct you should be able to turn the cap on end of push rod reasonably free when valve is on its seat.

Your quietness depends largely on the care used in making the adjustment.

To Remove the Valve Mechanism

Take your time and do it right. Loosen and run up the rocker arm adjusting screw as far as it will go.

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Lift off rocker arm;

Pull out push rod;

Loosen check nut on tube;

Run up adjusting nut and lift out tube, and with finger inside push rod end. Lift out both push rod and carrier.

To replace the parts reverse the order.

Fan and Generator Belts

Do not run them tight, allow quite a little slack. Will run indefinitely if not too tight.

Fill fan hub with engine oil about every three months.

A drop of oil on front and rear bearings of generator once a month.

Spark Plugs

Use standard S.A.E. $\frac{7}{8}$-18 size plugs, conical type high fire test porcelains made by Champion-Toledo, AC., or Bethlehem, with not over .060 diameter wire electrodes, ($\frac{1}{16}$-inch).

Spark Plug Gap

Set the gaps to .020 (twenty thousandths).

Ignition Points

Should have .012 to .015 opening (twelve to fifteen thousandths).

Keep the cup just under igniter head filled with vaseline once a month.

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Keep contacts clean.

With a small smooth file take off any points that may build up from time to time.

Clutch

The multiple disc clutch is designed to last indefinitely without adjusting.

In the event it is necessary, take out locking wire and with a nail or punch inserted in one of the holes in adjusting nut, a half turn on each (3) will suffice.

Replace wire to prevent working loose.

Throw out Bearing

Is oiled from inside through shaft.

If it should become dry and make noise, it can be oiled with squirt can after removing cover.

This will rarely ever be necessary if a medium engine oil is used in transmission.

Transmission

Use a medium engine oil put in through plug at side of case, near tire pump, to this level, (never any more), in winter.

600 Heavy is all Okay in summer, but should be changed to engine oil as soon as weather gets cool.

Rear Axle

Use about one and one-half quarts of medium engine oil in differential housing, never any more. This

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will thoroughly lubricate all bearings and will not work out onto the brakes.

In replenishing, always drain off old oil before adding new supply.

Cable Brakes

Take up is provided at hub of pedal, by means of a set screw and jam nut. Also quick adjustments are provided at each rear drum. The cables are housed in steel tubes and are water tight everywhere except at front and rear ends, which are protected by boots. Every precaution is taken to prevent water entering tubes. It will do no particular harm except in freezing weather. If water should get into the tubes squirt some denatured alcohol in. This will make an anti-freeze solution as used in radiator and prevent further trouble.

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